By Pursh and some other American botanists, this species and one other have been separated from the genus Pyrola, to constitute a new family by the name of Chimaphila. As the grounds of distinction, however, between them are not sufficient to render it certain that this genus will ultimately stand; I have preferred retaining the original Linnæan name.*

* It is somewhat remarkable, that the genus Chimaphila was first established upon characters, which hardly exist in either of the plants it is intended to comprehend. The principal grounds of distinction, suggested by Michaux and adopted by Pursh, seem to consist in a *sessile stigma*, and anthers opening by a *subbivalve foramen*. Now the stigma is not sessile, since that term implies the absence of a style, and the anthers do not open by any subbivalve foramen, differing from the rest, but by two tubular pores, precisely as in the other species of Pyrola. Mr. Nuttall, in his interesting work on North American genera, has amended the character of Chimaphila, by bringing into view the calyx, filaments, &c. while he has added to the characteristics of Pyrola, a downy connexion of the valves of the capsule. In the calyx, however, the two species of Chimaphila are at different extremes from each other; one of them having a five leaved calyx, the leaves overlaying each other at base; the other having a five toothed calyx only, while the remaining species of Pyrola, being five parted, come between them. I have not been able to find the *tomentum* spoken of by Mr. Nuttall, in all the spiked species, and particularly in P. secunda.

If the genus Pyrola were ever to be dismembered, it should be into at least four distinct genera, as follows;

1. *Style declined, stigma annulate.*
   P. rotundifolia, P. asarifolia, &c.

The genus Pyrola belongs to the class *Decandria*, and order *Monogynia*. It ranks among

2. *Style straight, stigma peltate.*
   P. secunda, P. uniflora, &c.
3. *Style incrassated, calyx five leaved.*
   P. maculata.
4. *Style immersed, calyx five toothed.*
   P. umbellata.

If we go farther and take into view the direction and form of the filaments, and the other parts of flower and fruit, with their various combinations; we shall have nearly as many genera as there are now species, since it is well known that many of the most important specific distinctions in this genus are taken from the fructification.

On these accounts there can be no doubt that the genus Pyrola had better remain entire. In habit it is certainly one of the most natural genera we possess. All the species are humble evergreens, growing in woods, with creeping roots, ascending stems, and nodding flowers. All of them have their leaves in irregular whorls, flower with reversed anthers, and retain their style until the fruit is ripe. In inflorescence, one is solitary, two somewhat corymbed, and the rest spiked. The leaves of P. secunda, umbellata and maculata are usually in two or more whorls; those of most others in one radical whorl or aggregate. One species is said to be leafless.

In the dissections accompanying the figure of P. umbellata I have endeavoured to represent the evident gradation of the style from the species in which it is longest, to that in which it is shortest. In the same plate are added some of the varieties of the calyx and stamens.

The following remark of Sir James Edward Smith, the learned president of the Linnæan society, is from Rees' Cyclopedia, *Art.* Pyrola. "We can by no means assent to the establishment of that able writer's *(Pursh's)* Genus Chimaphila, there being surely no diversity of habit to support it, nor any character but a difference in the length of the style; which the other species of Pyrola shew to afford admirable specific, but no generic distinctions.

JACOB BIGELOW *American Medical Botany* BOSTON, 1817-1820 CARY GRAPHIC ARTS COLLECTION, ROCHESTER INSTITUTE OF TECHNOLOGY Octavo